



# *Investment Section*

Report by Investment Consultant

Letter from TCRS Chief Investment Officer

Statutory Investment Authority

Investment Performance Review

Asset Allocation

Largest Holdings

Investment Summary

Schedules of Investment Fees and Commissions



**PATRICK F. THOMAS, CFA**  
Managing Director

November 7, 2014

Attn: Ms. Jill Bachus, Director  
Tennessee Consolidated Retirement System  
Andrew Jackson Building  
Nashville, TN 37243-0230

Re: 2014 CAFR Performance Letter

Dear Jill:

For the year ended June 30, 2014, TCRS earned a return of (+16.65%), slightly behind its policy index return of (+16.88) but ahead of its as-allocated index by 11 basis points. Strong returns in Domestic Equities (+25.19%) and International Developed Markets (+22.04%) were partially offset by lower results in Domestic Fixed Income (+7.73%) and Inflation Indexed Fixed Income (+4.66%).

As of June 30, 2014, the System's asset allocation and one-year respective returns were:

Asset Class	% of Assets	One-Year Return
Domestic Equity	35.6%	25.19%
Canada Index Fund	4.4%	27.08%
International Developed Market	13.9%	22.04%
International Emerging Market	4.3%	14.09%
Domestic Fixed Income	27.1%	7.73%
Inflation-Indexed Fixed Income	5.7%	4.66%
Real Estate	5.3%	10.72%
Private Equity	1.4%	23.77%
Strategic Lending	1.4%	n/a
Cash and Cash Equivalents	0.9%	0.73%
<b>Total</b>	<b>100.0%</b>	<b>16.65%</b>

TCRS ranked above the median large public plan (InvestorForce's Public DB > \$1 billion) over the past year, and was also well ahead for the three-year period, ranking in the top quarter of large public peer plans. These returns were achieved in the context of an asset allocation that is designed to meet the System's liability obligations while minimizing the risk of loss.

During the year, world economic news continued to be mixed as the developed countries experienced sluggish but sustained growth, and many emerging countries still struggled with the prospect of uncertain capital flows. Global equities enjoyed a robust year, with the United States and Continental Europe leading the way. After last spring's Federal Reserve induced "taper tantrum" by bond investors, and an attendant period of higher-trending yields, the bond markets rebounded strongly towards fiscal year end. Overall, given the year's many ongoing global economic uncertainties, capital markets continued to climb a wall of worry to post high returns overall.

After several years of providing investors with elevated returns, SIS believes that global equities have now become more fairly valued, and as such are likely to provide more modest returns over the next several years. Historically low bond yields similarly augur the likelihood of low future returns for investors. The TCRS portfolio, with its emphasis on cost efficiency, safety of capital, and low risk to liabilities, clearly is well designed for the expected environment of lower and more volatile capital market returns.

SIS is an independent, employee-owned investment consulting firm. Our sole line of business is providing strategic consulting services to large institutional investors.

Best regards,

A handwritten signature in blue ink, appearing to read 'P. Thomas'.

**Patrick F. Thomas, CFA**  
pthomas@sis-sf.com

## LETTER FROM TCRS CHIEF INVESTMENT OFFICER

DAVID H. LILLARD, JR.  
STATE TREASURER

MICHAEL BRAKEBILL  
CHIEF INVESTMENT OFFICER

STATE OF TENNESSEE



TREASURY DEPARTMENT  
STATE CAPITOL  
NASHVILLE, TENNESSEE 37243-0225

JOY HARRIS  
CHIEF OF STAFF

JILL BACHUS  
DIRECTOR OF TCRS

November 14, 2014

Dear Members:

I am pleased to present the Investment Section of the TCRS Comprehensive Annual Financial Report for the fiscal year ended June 30, 2014.

With over \$42.8 billion in assets, TCRS is one of the largest public pension plans in the United States. TCRS assets are invested to preserve principal value, to achieve a superior rate of return within acceptable risk levels and to provide the liquidity necessary to pay beneficiaries in a timely manner.

The TCRS portfolio is diversified among domestic and international stocks and bonds, real estate, private equity and short-term securities. A diversified portfolio is used to manage risk and to minimize significant exposure to unpredictable events. Staff consults with the TCRS general investment consultant periodically to determine the optimal, long-term mix of assets to best meet the plan's investment objectives. TCRS has adopted a conservative investment strategy that has yielded excellent returns with a low level of risks. The investment performance for TCRS was computed using a market, time-weighted rate of return.

Returns for the 2014 fiscal year were strong and the TCRS portfolio experienced a gain of 16.65% for the fiscal year and an annualized gain of 10.64% for the trailing three-year period. These returns both exceeded the actuarially-required returns by a significant margin and the portfolio was still managed in a manner to protect capital in an adverse environment.

The experienced investment staff of TCRS is committed to providing superior investment returns in a financially-sound manner with the highest ethical and professional standards. With the leadership of our Board, our Treasurer and our dedicated staff, this goal will be met.

Sincerely,

Michael Brakebill  
Chief Investment Officer

## STATUTORY INVESTMENT AUTHORITY

The investment authority for the Board of Trustees of TCRS is set out in Tennessee Code Annotated, Section 8-37-104. Pursuant to this authority and the investment terms, conditions and limitations outlined therein, the Board of Trustees approves the TCRS' investment policy.

TCRS' investment objectives, set by the Board for the Treasury Investment Division staff, are to obtain the highest available return on investments consistent with the preservation of principal, while maintaining sufficient liquidity to react to the changing environment and to pay beneficiaries in a timely manner.

TCRS' policies and the strategies implemented by the Investment Division staff serve to benefit plan members in several ways. The emphasis on a conservative asset allocation and high quality securities helps to ensure the soundness of the system and the ability to provide the needed funds upon a member's retirement.

Funds in the retirement system are actively managed with a diversified portfolio of high-quality domestic and international bonds, domestic and international stocks, real estate, private equity and short-term instruments. From time to time, pursuant to Tennessee Code Annotated, Section 8-37-114, the Treasury Investment Division engages outside investment managers to manage a limited number of asset classes or subclasses. In those instances, the Investment Division endeavors to use emerging investment managers to the greatest extent feasible within the bounds of financial and fiduciary prudence, as prescribed under Tennessee Code Annotated, Section 8-37-113. During the fiscal year 2013-2014, no assets were under the control of emerging investment managers.

To assist in the fiduciary responsibility for managing the TCRS portfolio, Strategic Investment Solutions, Inc. serves as the general investment consultant for TCRS. The Townsend Group serves as the real estate investment consultant and Cambridge Associates serves as the private equity consultant to TCRS.

Northern Trust Company was the master bank custodian for TCRS, providing safekeeping and accounting services for the investment portfolio, during fiscal year 2014.

## COST OF INVESTMENT OPERATION

The cost to operate the investment program for TCRS is about ten basis points (.10%) of assets. The cost of ten basis points includes the cost of personnel, operational cost, master bank custodian cost, record keeping and external manager fees. Commission cost for trades are capitalized. Recent peer comparisons of investment management fees and expenses indicate the investment program is managed very cost effectively.

## PERFORMANCE MEASUREMENT

TCRS' independent external investment consultant, Strategic Investment Solutions, Inc., provides performance measurement for TCRS. During the 2014 fiscal year, TCRS had a total return of 16.65%. Domestic stocks gained 25.19%, while the S&P 1500 Index gained 24.70%. Domestic bonds gained 7.73% versus the bond benchmark of 6.77%. International stocks gained 20.47% versus a gain of 21.56% for the benchmark. Real estate gained 10.72% versus 11.77% for the NCREIF index.

## INVESTMENT PERFORMANCE REVIEW

**INVESTMENT PERFORMANCE REVIEW**  
**PERIODS ENDING JUNE 30, 2014**

	Annualized Returns		
	Current Year	3-Year	5-Year
Pension Plan Portfolio			
TCRS Performance	16.65 %	10.64 %	12.29 %
Policy Index	16.88 %	10.59 %	12.38 %
Asset Allocated Index	16.54 %	10.06 %	11.93 %
Domestic Equity			
TCRS Performance	25.19 %	16.55 %	19.21 %
Benchmark	24.70 %	16.48 %	19.18 %
Canadian Equity			
TCRS Performance	27.08 %	4.13 %	
Benchmark	27.08 %	3.99 %	
Domestic Fixed Income			
TCRS Performance	7.73 %	7.31 %	8.33 %
Benchmark	6.77 %	6.26 %	6.35 %
Inflation Hedged Bonds	4.66 %	3.62 %	5.35 %
Benchmark	4.66 %	3.68 %	5.70 %
International Equity			
TCRS Performance	20.47 %	8.21 %	13.09 %
Benchmark	21.56 %	6.17 %	10.83 %
Real Estate			
TCRS Performance	10.72 %	10.28 %	5.32 %
Benchmark	11.17 %	11.69 %	7.89 %
Short-Term Securities			
TCRS Performance	0.73 %	0.86 %	1.41 %
Private Equity			
TCRS Performance	23.77 %	15.81 %	
Benchmark	24.75 %	21.60 %	

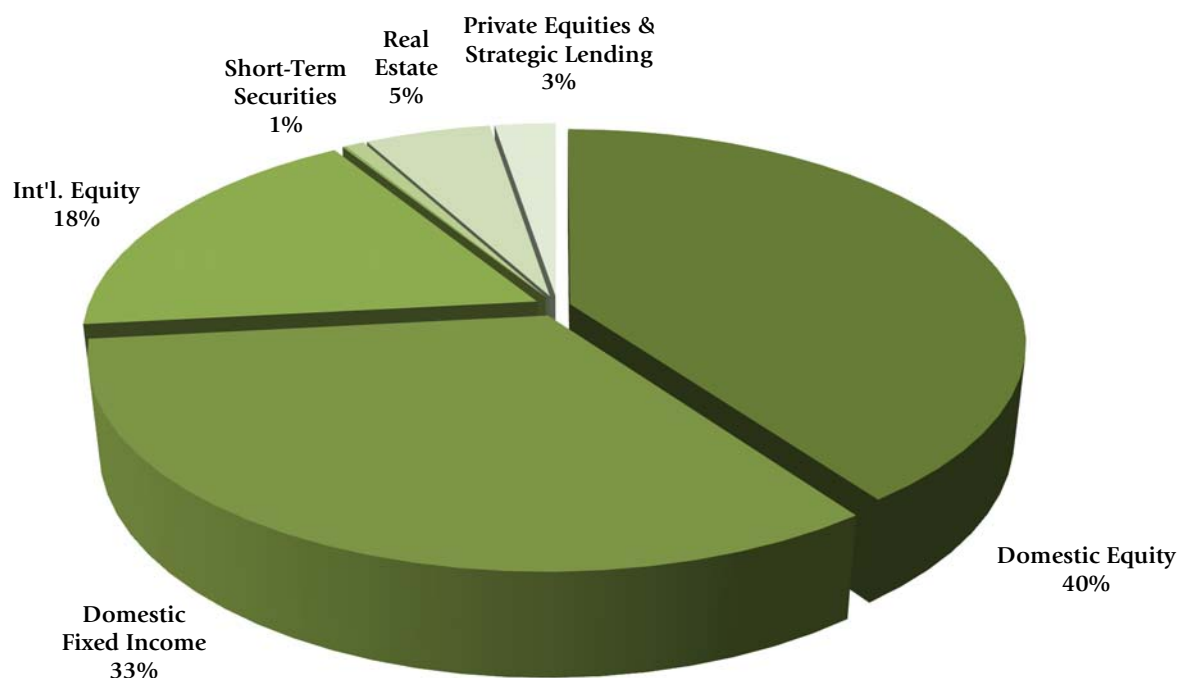
Ranking of TCRS Portfolio	Strategic Investment Solutions	
	<u>Percentile Rankings</u>	<u>Risk Adjusted Basis</u>
Last three years	22	11
Last five years	69	15

The percentile ranking is the position of the TCRS portfolio as compared with other public funds with one being the best and 100 being the worst. The investment performance for TCRS was computed using a market, time weighted rate of return by an independent investment consultant.

**ASSET ALLOCATION**  
**AS OF JUNE 30, 2014**

Asset Class	Fair Value
Domestic Equity	\$ 17,091,039,079
Domestic Fixed Income	14,154,679,814
International Equity	7,624,296,541
International Fixed Income	40,307,782
Short-Term Securities	353,448,089
Real Estate	2,278,482,101
Private Equities and Strategic Lending	1,100,887,440
Totals	<u>\$ 42,643,140,846</u>

This schedule classifies Canadian investments as domestic securities, convertible bonds as fixed income securities and preferred stock as fixed income securities. For investment purposes, convertible bonds and preferred stock are considered equity securities. Accordingly, the asset allocation percentages in this schedule will vary from the investment consultant's asset allocation percentages.



## LARGEST HOLDINGS

### JUNE 30, 2014

#### LARGEST STOCK HOLDINGS

*as of June 30, 2014*

*by Fair Value*

Shares	Security Name	Fair Value
5,590,788	Apple Inc Com Stk	\$ 519,551,929
2,933,315	Exxon Mobil Corp Com	295,326,154
4,472,892	Wells Fargo & Co New Com Stk	235,095,204
4,720,787	Microsoft Corp Com	196,856,818
1,799,346	Johnson & Johnson Com USD1	188,247,579
3,090,700	JP Morgan Chase & Co Com	178,086,134
1,365,553	Berkshire Hathaway Inc-Cl B	172,824,388
2,935,489	Merck & Co Inc New Com	169,818,039
3,416,020	Verizon Communications Com	167,145,859

#### LARGEST BOND HOLDINGS

*as of June 30, 2014*

*by Fair Value*

Par Value	Security Name	Yield	Maturity	Moody's Rating	Fair Value
\$ 139,900,000	U.S. Treasury Index Linked Note	(15.32)%	01/15/16	Aaa	\$ 176,157,602
135,000,000	U.S. Treasury Note	0.58%	07/15/20	Aaa	160,802,952
127,000,000	U.S. Treasury Note	0.92%	01/15/21	Aaa	149,071,490
139,800,000	U.S. Treasury Index Linked Note	1.72%	01/15/22	Aaa	147,387,680
95,000,000	U.S. Treasury Index Linked Note	0.12%	01/15/25	Aaa	144,733,812
118,800,000	U.S. Treasury Note	2.89%	07/15/21	Aaa	131,613,743
126,144,967	FNMA POOL #AB6024	2.82%	08/01/42	NR	130,054,199
115,000,000	U.S. Treasury Note	(3.06)%	04/15/17	Aaa	124,145,428
85,000,000	U.S. Treasury Index Linked Note	0.93%	01/15/26	Aaa	119,607,869
107,874,000	U.S. Treasury Bonds	3.19%	08/15/43	Aaa	113,941,913

*A complete portfolio listing is available upon request.*

**Key to Ratings:** All ratings presented are from Moody's Investors Service with the exception of some of the government agency securities. Moody's does not rate these securities. Standard & Poor's does provide ratings for the securities (AAA is Standard & Poor's highest rating.) Government Securities are not rated per se, but are considered the best quality securities.

Moody's rates securities as follows:

Aaa:	Best Quality
Aa:	High Quality
A:	Upper Medium Quality
Baa:	Medium Quality
NR:	Not Rated



# INVESTMENT SUMMARY

## AS OF JUNE 30, 2014

	Domestic		International		Total	
	Fair Value	%	Fair Value	%	Fair Value	%
Fixed Income						
Government Bonds	\$ 4,529,807,462	10.62%	\$ 0	0.00%	\$ 4,529,807,462	10.62%
Corporate Bonds	4,373,262,408	10.26%	0	0.00%	4,373,262,408	10.26%
Convertible Bonds	0	0.00%	0	0.00%	0	0.00%
Municipal/Provincial Bonds	156,846,148	0.37%	0	0.00%	156,846,148	0.37%
Total Bonds	9,059,916,018	21.25%	0	0.00%	9,059,916,018	21.25%
Lehman Brothers Escrow Adjustment	2,906,251	0.01%	0	0.00%	2,906,251	0.01%
Asset Backed	718,751,207	1.69%	0	0.00%	718,751,207	1.69%
Commercial Mortgage Backed	444,741,903	1.04%	0	0.00%	444,741,903	1.04%
Government Agencies	245,508,403	0.58%	0	0.00%	245,508,403	0.58%
Government Mortgage Backed Securites	3,498,774,789	8.20%	0	0.00%	3,498,774,789	8.20%
Non-Government CMOs	127,911,593	0.30%	0	0.00%	127,911,593	0.30%
Government Issued Commercial Mortgaged Backed	0	0.00%	0	0.00%	0	0.00%
Preferred Stock	56,169,650	0.13%	40,307,782	0.09%	96,477,432	0.23%
Total Fixed Income	14,154,679,814	33.19%	40,307,782	0.09%	14,194,987,596	33.29%
Common Stock						
Consumer Discretionary	1,882,644,383	4.41%	860,757,146	2.02%	2,743,401,529	6.43%
Consumer Staples	1,344,733,100	3.15%	419,327,573	0.98%	1,764,060,673	4.14%
Energy	2,011,542,159	4.72%	329,270,589	0.77%	2,340,812,748	5.49%
Financials	3,228,902,222	7.57%	1,071,328,641	2.51%	4,300,230,863	10.08%
Healthcare	2,052,243,175	4.81%	592,174,503	1.39%	2,644,417,678	6.20%
Industrials	1,825,768,716	4.28%	926,449,619	2.17%	2,752,218,335	6.45%
Information Technology	2,937,524,545	6.89%	365,063,711	0.86%	3,302,588,256	7.74%
Materials	819,835,877	1.92%	350,115,334	0.82%	1,169,951,212	2.74%
Rights/Warrants	0	0.00%	118,883	0.00%	118,883	0.00%
Telecommunication Services	451,259,485	1.06%	154,959,832	0.36%	606,219,316	1.42%
Utilities	521,742,805	1.22%	114,810,025	0.27%	636,552,830	1.49%
Miscellaneous/Unclassified	14,842,612	0.03%	595,028,994	1.40%	609,871,606	1.43%
Equity Exchange Traded Fund	0	0.00%	1,829,908,866	4.29%	1,829,908,866	4.29%
Stapled Securities	0	0.00%	14,982,824	0.04%	14,982,824	0.04%
Total Common Stock	17,091,039,079	40.08%	7,624,296,540	17.88%	24,715,335,619	57.96%
Short-Term Investments						
Commercial Paper	149,988,810	0.35%	0	0.00%	149,988,810	0.35%
Pooled Funds and Mutual Funds	16,299,081	0.04%	0	0.00%	16,299,081	0.04%
Short-Term Bills and Notes	187,160,198	0.44%	0	0.00%	187,160,198	0.44%
Total Short-Term Investments	353,448,089	0.83%	0	0.00%	353,448,089	0.83%
Real Estate	2,278,482,101	5.34%	0	0.00%	2,278,482,101	5.34%
Private Equities and Strategic Lending	1,100,887,440	2.58%	0	0.00%	1,100,887,440	2.58%
Total Investments	34,978,536,523	82.03%	7,664,604,322	17.97%	42,643,140,845	100.00%
Derivatives and Options	3,282,847		0		0	
Short-Term Investments Classified as Cash Equivalents	(216,283,941)		0		(216,283,941)	
Total Investments as Shown on the Statement of Fiduciary Net Position	\$ 34,765,535,430		\$ 7,664,604,322		\$ 42,430,139,752	

This schedule classifies Canadian investments as domestic securities, convertible bonds as fixed income securities and preferred stock as fixed income securities. For investment purposes convertible bonds and preferred stock are considered equity securities. Accordingly, the asset allocation percentages in this schedule will vary from the investment consultant's asset allocation percentages.



# SCHEDULES OF INVESTMENT FEES AND COMMISSIONS FOR THE YEAR ENDED JUNE 30, 2014

## SCHEDULE OF FEES

	Average Assets Under Management	Fees
<b>Asset Management</b>		
International Investment Manager Fees	\$ 5.6 Billion	\$ 21,551,136
Real Estate Asset Management	2.3 Billion	10,283,258
Private Equities Asset Management	1.1 Billion	0
Total Asset Management		<u>\$31,834,394</u>
<b>Other Investment Services Fees</b>		
Custodian Bank	42.8 Billion	\$ 396,000
General Investment Consultant	42.8 Billion	450,000
Real Estate Investment Consultant	2.3 Billion	125,000
Private Equities and Strategic Lending Investment Consultant	1.1 Billion	1,506,000
Total Investment Services Fees		<u>\$ 2,477,000</u>

## SCHEDULES OF COMMISSIONS

### *Domestic Exchange Traded Shares*

Broker Name	DOMESTIC		
	Number of Shares Traded	Total Commissions	Commission Per Share
Capis	33,088,372	\$ 1,323,535	0.0400
Barclays Capital	34,627,940	687,559	0.0199
Instinet, LLC	17,043,406	340,868	0.0200
Deutsche Bank Securities, Inc.	17,014,728	339,965	0.0200
Cowen & Company, LLC	16,134,283	322,636	0.0200
UBS Securities LLC	19,104,626	302,093	0.0158
Sanford C. Bernstein & Company, Inc.	15,069,534	301,391	0.0200
JP Morgan Chase & Company	13,280,503	255,010	0.0192
Morgan Stanley & Company, Inc.	12,360,278	247,186	0.0200
International Strategy & Investment Inc.	11,852,775	237,056	0.0200
RBC Capital Markets Corporation	11,645,143	232,903	0.0200
Citigroup Global Markets, Inc.	9,676,411	193,528	0.0200
Other Brokers*	68,618,833	1,140,104	0.0166
<b>Totals</b>	<u><b>279,516,832</b></u>	<u><b>\$ 5,923,831</b></u>	

(continued)

# SCHEDULES OF INVESTMENT FEES AND COMMISSIONS FOR THE YEAR ENDED JUNE 30, 2014 (CONTINUED)

*Program Trades where total commission cost includes trading commission, liquidity fees and market impact fees.*

Broker Name	DOMESTIC		
	Number of Shares Traded	Total Commissions	Commission Per Share
Capis	81,037,526	\$ 1,135,280	0.0140
Credit Suisse	80,083,799	1,032,103	0.0129
Barclays Capital	33,096,990	425,031	0.0128
Morgan Stanley & Company, Inc.	39,202,241	300,347	0.0077
Cowen & Company, LLC	24,285,583	189,903	0.0078
Sandford C. Bernstein & Company, Inc.	26,091,996	184,067	0.0071
Bank of America Merrill Lynch	17,377,228	131,452	0.0076
Other Brokers*	50,969,515	344,560	0.0068
<b>Totals</b>	<b>352,144,878</b>	<b>\$ 3,742,744</b>	

## *International Exchange Traded Shares*

Broker Name	INTERNATIONAL		
	Number of Shares Traded	Total Commissions	Commission Per Share
UBS Securities LLC	31,545,346	\$ 441,062	0.0140
JP Morgan Chase & Company	42,452,519	423,469	0.0100
Citigroup Global Markets, Inc.	30,138,972	357,749	0.0119
Instinet, LLC	70,898,422	347,288	0.0049
Bank of America Merrill Lynch	46,051,223	343,296	0.0075
Goldman Sachs Group, Inc.	34,615,698	309,439	0.0089
Barclays Capital	26,960,247	296,368	0.0110
Morgan Stanley & Company, Inc.	22,170,601	289,648	0.0131
Credit Suisse	19,173,169	271,516	0.0142
Deutsche Bank Securities, Inc.	16,390,911	223,170	0.0136
HSBC Bank PLC	13,339,327	148,620	0.0111
Macquarie Group LTD	9,054,051	139,235	0.0154
Exane	3,467,012	126,415	0.0365
Berenberg	2,358,146	114,112	0.0484
Jefferies LLC	6,530,673	102,873	0.0158
Other Brokers*	122,071,355	1,205,532	0.0099
<b>TOTALS</b>	<b>497,217,672</b>	<b>\$ 5,139,792</b>	

Shares for international stocks are based on the actual foreign shares traded while the commission is expressed in U.S. dollars. Therefore, commissions per share between domestic and international are not comparable.

\*Less than \$100,000 total commission per brokerage firm.